

Practitioner's Docket No.

50694

**PATENT** 

Preliminary Classification:

**Proposed Class:** 

Subclass:

NOTE: "All applicants are requested to include a preliminary classification on newly filed patent applications. The preliminary classification, preferably class and subclass designations, should be identified in the upper right-hand corner of the letter of transmittal accompanying the application papers, for example 'Proposed Class 2, subclass 129.' " M.P.E.P. § 601, 7th ed.

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**Box Patent Application** Assistant Commissioner for Patents Washington, D.C. 20231

## **NEW APPLICATION TRANSMITTAL**

Transmitted herewith for filing is the patent application of

Inventor(s): Neil D. Brown, George A. Federman, Angelo Chirafisi and

Gregory Lai

WARNING: 37 C.F.R. § 1.41(a)(1) points out:

"(a) A patent is applied for in the name or names of the actual inventor or inventors.

"(1) The inventorship of a nonprovisional application is that inventorship set forth in the oath or declaration as prescribed by § 1.63, except as provided for in § 1.53(d)(4) and § 1.63(d). If an oath or declaration as prescribed by § 1.63 is not filed during the pendency of a nonprovisional application, the inventorship is that inventorship set forth in the application papers filed pursuant to § 1.53(b), unless a petition under this paragraph accompanied by the fee set forth in § 1.17(i)

is filed supplying or changing the name or names of the inventor or inventors."

For (title):

TIN ELECTROLYTE

## CERTIFICATION UNDER 37 C.F.R. § 1.10\*

(Express Mail label number is mandatory.) (Express Mail certification is optional.)

I hereby certify that this New Application Transmittal and the documents referred to as attached therein are being deposited with the United States Postal Service on this date March 31 . 2000 as "Express Mail Post Office to Addressee," mailing Label Number \_EK493899015IIS , in an envelope dressed to the: Assistant Commissioner for Patents, Washington, D.C. 20231.

#### <u>Deanna M. Rivernider</u>

(type or print name of person mailing paper)

Signature of person mailing paper

WARNING: Certificate of mailing (first class) or facsimile transmission procedures of 37 C.F.R. § 1.8 cannot be

used to obtain a date of mailing or transmission for this correspondence.

\*WARNING: Each paper or fee filed by "Express Mail" must have the number of the "Express Mail" mailing label placed thereon prior to mailing. 37 C.F.R. § 1.10(b).

"Since the filing of correspondence under § 1.10 without the Express Mail mailing label thereon is an oversight that can be avoided by the exercise of reasonable care, requests for waiver of this requirement will **not** be granted on petition." Notice of Oct. 24, 1996, 60 Fed. Reg. 56,439, at 56,442.

(New Application Transmittal [4-1]—page 1 of 11)

### 1. Type of Application

This new application is for a(n)

(check one applicable item below)

	(Greek one applicable item below)
X	Original (nonprovisional)
	Design
	☐ Plant
WARNIN	G: Do not use this transmittal for a completion in the U.S. of an International Application under 35 U.S.C. § 371(c)(4), unless the International Application is being filed as a divisional, continuation or continuation-in-part application.
WARNIN	G: Do not use this transmittal for the filing of a provisional application.
NOIE: 1	f one of the following 3 items apply, then complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF A PRIOR U.S. APPLICATION CLAIMED and A NOTIFICATION NOTIFICATION PARENT APPLICATION OF THE FILING OF THIS CONTINUATION APPLICATION.
	Divisional.
	Continuation.
	Continuation-in-part (C-I-P).
Benef	fit of Prior U.S. Application(s) (35 U.S.C. §§ 119(e), 120, or 121)

NOTE: A nonprovisional application may claim an invention disclosed in one or more prior filed copending nonprovisional applications or copending international applications designating the United States of America. In order for a nonprovisional application to claim the benefit of a prior filed copending nonprovisional application or copending international application designating the United States of America, each prior application must name as an inventor at least one inventor named in the later filed nonprovisional application and disclose the named inventor's invention claimed in at least one claim of the later filed nonprovisional application in the manner provided by the first paragraph of 35 U.S.C. § 112. Each prior application must also be:

- (i) An international application entitled to a filing date in accordance with PCT Article 11 and designating the United States of America; or
  - (ii) Complete as set forth in § 1.51(b); or
- (iii) Entitled to a filing date as set forth in § 1.53(b) or § 1.53(d) and include the basic filing fee set forth in § 1.16; or
- (iv) Entitled to a filing date as set forth in § 1.53(b) and have paid therein the processing and retention fee set forth in § 1.21(1) within the time period set forth in § 1.53(f).

37 C.F.R. § 1.78(a)(1).

NOTE: If the new application being transmitted is a divisional, continuation or a continuation-in-part of a parent case, or where the parent case is an International Application which designated the U.S., or benefit of a prior provisional application is claimed, then check the following item and complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICA-TION(S) CLAIMED.

WARNING: If an application claims the benefit of the filing date of an earlier filed application under 35 U.S.C. §§ 120, 121 or 365(c), the 20-year term of that application will be based upon the filing date of the earliest U.S. application that the application makes reference to under 35 U.S.C. §§ 120, 121 or 365(c). (35 U.S.C. § 154(a)(2) does not take into account, for the determination of the patent term, any application on which priority is claimed under 35 U.S.C. §§ 119, 365(a) or 365(b).) For a c-i-p application, applicant should review whether any claim in the patent that will issue is supported by an earlier application and, if not, the applicant should consider canceling the reference to the earlier filed application. The term of a patent is not based on a claim-by-claim approach. See Notice of April 14, 1995, 60 Fed. Reg. 20,195, at 20,205.

(New Application Transmittal [4-1]—page 2 of 11)

C	Declaration	n of Biological Deposit
	beiraning	n of "Sequence Listing," computer readable copy and/or amendment thereto for biotechnology invention containing nucleotide and/or disequence.
	Authorization tive	on of Áttorney(s) to Accept and Follow Instructions from Representa-
	Special Co	mments
, 🗀	Other	
5. Dec	laration or oa	ath (including power of attorney)
NOTE:	A newly executed the prior nonproduced by all or fewer to application being the signature or a by a statement rebeing filed. If the declaration must be person under § 10 executed declaration	d declaration is not required in a continuation or divisional application provided that visional application contained a declaration as required, the application being filed is than all the inventors named in the prior application, there is no new matter in the filed, and a copy of the executed declaration filed in the prior application (showing an indication thereon that it was signed) is submitted. The copy must be accompanied equesting deletion of the names of person(s) who are not inventors of the application e declaration in the prior application was filed under § 1.47, then a copy of that be filed accompanied by a copy of the decision granting § 1.47 status or, if a nonsigning 1.47 has subsequently joined in a prior application, then a copy of the subsequently tion must be filed. See 37 C.F.R. §§ 1.63(d)(1)–(3).
	abbreviation toge	d to complete an application must be executed, identify the specification to which it fy each inventor by full name including family name and at least one given name, without ther with any other given name or initial, and the residence, post office address and iship of each inventor, and state whether the inventor is a sole or joint inventor. 37 ()-(4).
i	as prescribed by § is that inventorship this paragraph ac	of a nonprovisional application is that inventorship set forth in the oath or declaration § 1.62, except as provided for in § 1.53(d)(4) and § 1.63(d). If an oath or declaration § 1.63 is not filed during the pendency of a nonprovisional application, the inventorship to set forth in the application papers filed pursuant to § 1.53(b), unless a petition under companied by the fee set forth in § 1.17(i) is filed supplying or changing the name inventor or inventors." 37 C.F.R. § 1.41(a)(1).
X	Enclosed	
	Executed by	<b>y</b>
		(check all applicable boxes)
	inventor	r(s).
	☐ legal re 37 C.F.I	presentative of inventor(s). R. §§ 1.42 or 1.43.
	ınterest	ventor or person showing a proprietary on behalf of inventor who refused to sign ot be reached.
		This is the petition required by 37 C.F.R. § 1.47 and the statement required by 37 C.F.R. § 1.47 is also attached. See item 13 below for fee.
. 🗆	Not Enclosed	d.
n	nay be treated as	a completion in the U.S. of an International Application or where the completion of a completion in contains subject matter in addition to the International Application, the application a continuation or continuation-in-part, as the case may be, utilizing ADDED PAGE ATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION CLAIMED.
	<ul> <li>Application</li> </ul>	ion is made by a person authorized under 37 C.F.R. § 1.41(c) on fall the above named inventor(s).
		(New Application Transmittal [4-1]—page 4 of 11)

10/6	79. ee	
WA		When the last day of pendency of a provisional application falls on a Saturday, Sunday, or Federal holiday within the District of Columbia, any nonprovisional application claiming benefit of the provisional application must be filed prior to the Saturday, Sunday, or Federal holiday within the District of Columbia. See 37 C.F.R. § 1.78(a)(3).
		The new application being transmitted claims the benefit of prior U.S. application(s). Enclosed are ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.
3. P	apers	Enclosed
A.	Requ (Desi	uired for filing date under 37 C.F.R. § 1.53(b) (Regular) or 37 C.F.R. § 1.153
_14	_ Pag	ges of specification
		ges of claims
		eets of drawing
WARI	VING:	DO NOT Submit original description
		DO NOT submit original drawings. A high quality copy of the drawings should be supplied when filing a patent application. The drawings that are submitted to the Office must be on strong, white, smooth, and non-shiny paper and meet the standards according to § 1.84. If corrections to the drawings are necessary, they should be made to the original drawing and a high-quality copy of the corrected original drawing then submitted to the Office. Only one copy is required or desired. For comments on proposed then-new 37 C.F.R. § 1.84, see Notice of March 9, 1988 (1990 O.G. 57-62).
NOTE:	on th	ntifying indicia, if provided, should include the application number or the title of the invention, notor's name, docket number (if any), and the name and telephone number of a person to call if the interest in the drawings to the proper application. This information should be placed to be back of each sheet of drawing a minimum distance of 1.5 cm. (5/8 inch) down from the top to page
		(complete the following, if applicable)
כ		ne enclosed drawing(s) are photograph(s), and there is also attached a 1.84(b).
	] fo	rmal
	] inf	formal
<b>B.</b> O	ther I	Papers Enclosed
1	Page	s of declaration and power of attorney s of abstract
	Other	
		l papers enclosed
	Am	endment to claims
		Cancel in this applications claims before calculating the filing fee. (At least one original independent claim must be retained for filing purposes.)
		·
	Prei	liminary Amendment
X		rmation Disclosure Statement (37 C.F.R. § 1.98)
X	For	m PTO-1449 (PTO/SB/08A and 08B)
<b>X</b>	Cita	tions
7	-144	
		(New Application T

(The declaration or oath, along with the surcharge required by 37 C.F.R. § 1.16(e) can be filed subsequently).
Showing that the filing is authorized.  (not required unless called into question. 37 C.F.R. § 1.41(d))  6. Inventorship Statement
WARNING: If the named inventors are each not the inventors of all the claims an explanation, including the ownership of the various claims at the time the last claimed invention was made, should be submitted.
The inventorship for all the claims in this application are:
☐ The same.
or
Not the same An avalence:
the time the last claimed invention was made.
is submitted.
□ will be submitted.
7. Language
NOTE: An application including a signed oath or declaration may be filed in a language other than English. An English translation of the non-English language application and the processing fee of \$130.00 required by 37 C.F.R. § 1.17(k) is required to be filed with the application, or within such time as may
English
☐ Non-English
The attached translation includes a statement that the translation is accurate. 37 C.F.R. § 1.52(d).
8. Assignment
An assignment of the invention to <u>Shipley Company</u> , L.L.C. of
mariborough, massachusetts 01752
is attached. A separate   "COVER SHEET FOR ASSIGNMENT (DOCU- MENT) ACCOMPANYING NEW PATENT APPLICATION" or  FORM PTO 1595 is also attached.
☐ will follow.
NOTE: "If an assignment is submitted with a new application, send two separate letters-one for the application and one for the assignment." Notice of May 4, 1990 (1114 O.G. 77-78).  WARNING: A people expected (IOSDE TO S
WARNING: A newly executed "CERTIFICATE UNDER 37 C.F.R. § 3.73(b)" must be filed when a continuation-in-part application is filed by an assignee. Notice of April 30, 1993, 1150 O.G. 62-64.
A1- A 11

(New Application Transmittal [4-1]—page 5 of 11)

S. Certified Copy						
Certified copy(ies) of application	on(s)					
Country	Appin. No.		Filed			
Country	. Appin. No.		Filed			
Country	Appin. No.					
from which priority is claimed	, Applic 140.		Filed			
☐ is (are) attached.						
☐ will follow.						
NOTE: The foreign application forming declaration. 37 C.F.R. § 1.55(a)	the basis for the claim	for priority mus	t be referred to in the oath o			
NOTE: This item is for any foreign pric U.S. application or International § 120 is itself entitled to priority PAGES FOR NEW APPLICATIO CLAIMED.	from a prior femiliary	uis application (	ciaims benefit under 35 U.S.C			
10. Fee Calculation (37 C.F.R.	§ 1.16)					
A. 🗵 Regular application	·					
	CLAIMS AS FILED	)				
Number filed	Number Extra	Rate	Basic Fee 37 C.F.R. § 1.16(a)			
Total			\$690.00			
Claims (37 C.F.R. § 1.16(c)) 17 – 20	= x	\$ 18.00				
Independent Claims (37 C.F.R.						
§ 1.16(b)) 2 - 3 =	X	\$ 78.00				
Multiple dependent claim(s), if any (37 C.F.R. § 1.16(d))	+	\$260.00				
☐ Amendment cancelling e	extra claims is encir					
☐ Amendment deleting mu	Iltiple-dependencies	is enclosed				
Fee for extra claims is r	Amendment deleting multiple-dependencies is enclosed.  Fee for extra claims is not being paid at this time.					
NOTE: If the fees for extra claims are not p prior to the expiration of the time notice of fee deficiency. 37 C.F.R.	aid on filing they must be		ns cancelled by amendment, and Trademark Office in any			
	Fee Calculation		\$ 690.00			

Filing Fee Calculation

B. Design application (\$310.00—37 C.F.R. § 1.16(f))

(New Application Transmittal [4-1]—page 6 of 11)

<b>c.</b> [	Plant application
	(\$480.00—37 C.F.R. § 1.16(g))
11. Sn	Filing fee calculation \$
	is (are) attached.
	**Status as a small entity must be specifically established in each application or patent in which the status is available and desired. Status as a small entity in one application or patent does not affect any other application or patent, including applications or patents which are directly or indirectly dependent upon the application or patent in which the status has been established. The refiling of an application under § 1.53 as a continuation, division, or continuation-in-part (including a continued prosecution application under § 1.53(d)), or the filing of a reissue application requires a new determination as to continued entitlement to small entity status for the continuing or reissue application. A nonprovisional application claiming benefit under 35 U.S.C. § 119(e), 120, 121, or 365(c) of a prior application, or a reissue application may rely on a statement filed in the prior application or in the patent if the nonprovisional application or the reissue application includes a reference to the statement in the prior application or in the patent or includes a copy of the statement in the prior application or in the patent and status as a small entity is still proper and desired. The payment of the small entity basic statutory filing fee will be treated as such a reference for purposes of this section." 37 C.F.R. § 1.28(a)(2).
WARNIN	G: "Small entity status must not be established when the person or persons signing the statement can unequivocally make the required self-certification." M.P.E.P., § 509.03, 6th ed., rev. 2, July 1996 (emphasis added).
	(complete the following, if applicable)
	Status as a small entity was claimed in prior application
	/ filed on
	35 U.S.C. § □ 119(e),
	□ 120,
	☐ 121,
	□ 365(c),
	and which status as a small entity is still proper and desired.
	A copy of the statement in the prior application is included.
•	Filing Fee Calculation (50% of A, B or C above)
	\$
ext	y excess of the full fee paid will be refunded if small entitiy status is established and a refund request filed within 2 months of the date of timely payment of a full fee. The two-month period is not tendable under § 1.136. 37 C.F.R. § 1.28(a).
12. Requ	est for International-Type Search (37 C.F.R. § 1.104(d))
	(complete, if applicable)
<u> </u>	Please prepare an international-type search report for this application at the time when national examination on the merits takes place.

13. Fee	Payment Being Made at This Time	
	Not Enclosed	
	No filing fee is to be paid at this time. (This and the surcharge required by 37 C.F.R. subsequently.)	\$ 1.16(e) can be paid
X	Enclosed	
	☑ Filing fee	. (00.00
	Recording assignment (\$40.00; 37 C.F.R. § 1.21(h)) (See attached "COVER SHEET FOR ASSIGNMENT ACCOMPANYING NEW APPLICATION".)	\$ _690.00
	Petition fee for filing by other than all the inventors or person on behalf of the inventor where inventor refused to sign or cannot be reached	\$ _40.00
	(\$130.00; 37 C.F.R. §§ 1.47 and 1.17(I))	\$
	For processing an application with a specification in a non-English language (\$130.00; 37 C.F.R. §§ 1.52(d) and 1.17(k))	
	Processing and retention fee (\$130.00; 37 C.F.R. §§ 1.53(d) and 1.21(l))	\$
	(\$40.00; 37 C.F.R. § 1.21(a))	\$
eithe	C.F.R. § 1.21(I) establishes a fee for processing and retaining any appling to complete the application pursuant to 37 C.F.R. § 1.53(f) and this C.F.R. §§ 1.53 and 1.78(a)(1), indicate that in order to obtain the benefier the basic filing fee must be paid, or the processing and retention fein 1 year from notification under § 53(f).	s, as well as the changes to
44 35	Total fees enclosed	\$_ 730.00
	d of Payment of Fees	·
	check in the amount of \$ 730.00	
<b>\$</b> _		in the amount of
NOTE: Fees	duplicate of this transmittal is attached.	
§ 1.2	should be itemized in such a manner that it is clear for which purpose (2(b).	the fees are paid. 37 C.F.R.

# 15. Authorization to Charge Additional Fees

WARNING: If no fees are to be paid on filing, the following items should not be completed.

WARNING: Accurately count claims, especially multiple dependent claims, to avoid unexpected high charges, if extra claim charges are authorized.

- The Commissioner is hereby authorized to charge the following additional fees by this paper and during the entire pendency of this application to Account No. \_\_\_\_04-1105\_\_\_\_\_\_:
  - 37 C.F.R. § 1.16(a), (f) or (g) (filing fees)
  - X 37 C.F.R. § 1.16(b), (c) and (d) (presentation of extra claims)
- NOTE: Because additional fees for excess or multiple dependent claims not paid on filing or on later presentation must only be paid or these claims cancelled by amendment prior to the expiration of the time period set for response by the PTO in any notice of fee deficiency (37 C.F.R. § 1.16(d)), it might be best not to authorize the PTO to charge additional claim fees, except possibly when dealing with amendments after final action.
  - 37 C.F.R. § 1.16(e) (surcharge for filing the basic filing fee and/or declaration on a date later than the filing date of the application)
  - 37 C.F.R. § 1.17(a)(1)-(5) (extension fees pursuant to § 1.136(a)).
  - 37 C.F.R. § 1.17 (application processing fees)
- NOTE: ". . A written request may be submitted in an application that is an authorization to treat any concurrent or future reply, requiring a petition for an extension of time under this paragraph for its timely submission, as incorporating a petition for extension of time for the appropriate length of time. An authorization to charge all required fees, fees under § 1.17, or all required extension of time fees will be treated as a constructive petition for an extension of time in any concurrent or future reply requiring a petition for an extension of time under this paragraph for its timely submission. Submission of the fee set forth in § 1.17(a) will also be treated as a constructive petition for an extension of time in any concurrent reply requiring a petition for an extension of time under this paragraph for its timely submission." 37 C.F.R. § 1.136(a)(3).
  - ☐ 37 C.F.R. § 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 C.F.R. § 1.311(b))
- NOTE: Where an authorization to charge the issue fee to a deposit account has been filed before the mailing of a Notice of Allowance, the issue fee will be automatically charged to the deposit account at the time of mailing the notice of allowance. 37 C.F.R. § 1.311(b).
- NOTE: 37 C.F.R. § 1.28(b) requires "Notification of any change in status resulting in loss of entitlement to small entity status must be filed in the application . . . prior to paying, or at the time of paying, . . . the issue fee. . . " From the wording of 37 C.F.R. § 1.28(b), (a) notification of change of status must be made even if the fee is paid as "other than a small entity" and (b) no notification is required if the change is to another small entity.

(New Application Transmittal [4-1]—page 9 of 11)

NO	E: a	ructions as t Amounts of reasonable time, e returned by che Credit Acco	f twenty-five	dollars or les	s will not be re ied of such amo	turned unless s ounts; amounts	specifically over twent	requested with	hin nav
	X	Credit Acco	unt No	04-1105	redit to a depo	isit account." 3	7 C.F.R. §	1.26(a).	,
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Boston, MA 02109

(New Application Transmittal [4-1]—page 10 of 11)

107 11	recorporation by reference of added pages
	(check the following item if the application in this transmittal claims the benefit of prior U.S. application(s) (including an international application entering the U.S. stage as a continuation, divisional or C-I-P application) and complete and attach the ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED)
	Plus Added Pages for New Application Transmittal Where Benefit of Prior U.S. Application(s) Claimed
	Number of pages added
	Plus Added Pages for Papers Referred to in Item 4 Above
	Number of pages added
	Plus added pages deleting names of inventor(s) named in prior application(s) who is/are no longer inventor(s) of the subject matter claimed in this application.
_	Number of pages added
Į	Plus "Assignment Cover Letter Accompanying New Application"
☐ Sta	Number of pages added 3
⊔ 502	tuement Where No Further Pages Added
	(if no further pages form a part of this Transmittal, then end this Transmittal with this page and check the following item)
	This transmittal ends with this page.